

WHAT IS CLAIMED IS:

1. A method for calibrating a center error offset in a control system of an optical drive, the optical drive having photo detectors for generating an optical signal, a focusing coil for controlling a focus state, a sled for setting
5 the photo detectors and the focusing coil and a sled motor for controlling the movement of the sled, the method comprising the steps of:
controlling the focusing coil to focus on a rotating disk;
controlling the sled motor to keep the sled static;
controlling a tracking coil with different tracking coil control values;
10 measuring and storing data of the optical signal and a center level of a center error CE responding to each of the tracking coil control values;
and
selecting a largest value from the data of the optical signal and setting the center level of the center error CE responding to the largest optical
15 signal as a center error offset.
2. The method according to claim 1, wherein the optical signal is a tracking error TE signal and the data of the optical signal is the amplitude of the tracking error TE.
3. The method according to claim 1, wherein the optical signal is a radio
20 frequency signal and the data of the optical signal is the amplitude of the radio frequency signal.
4. The method according to claim 1, wherein the optical signal is a wobble

signal and the data of the optical signal is the amplitude of the wobble signal.

- 5 5. The method according to claim 1, wherein the optical signal is a center error CE signal and the data of the optical signal is the amplitude of the center error CE signal.
6. A control system of an optical drive capable of calibrating a center error offset, the control system having a sled motor and pickup assembly, a lens set, a pre-amplifier, a sled motor servo control unit, a long/short tracking calculation unit, a tracking coil servo control unit, and a power drive, characterized in that the control system further comprises:
- 10 a control signal generator for outputting different tracking coil control signals to the power drive in a calibrating mode; and
- 15 a measurement control unit for measuring and storing data of an optical signal and a center level of a center error CE signal responding to each of the tracking coil control signals in a calibrating process;
- wherein the measurement control unit selecting a largest value of the optical signal and setting the center level of the center error CE signal responding to the largest value of the optical signal as a center error offset.
- 20 7. The control system according to claim 6, wherein the optical signal is a tracking error TE signal and the data of the optical signal is the amplitude of the tracking error TE.

8. The control system according to claim 6, wherein the optical signal is a radio frequency signal and the data of the optical signal is the amplitude of the radio frequency signal.
9. The control system according to claim 6, wherein the optical signal is a
5 wobble signal and the data of the optical signal is the amplitude of the wobble signal.
10. The control system according to claim 6, wherein the optical signal is a center error CE signal and the data of the optical signal is the amplitude of a center error CE signal.